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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,020	01/15/2002	William Kress Bodin	AUS920010777US1	5700
34533 7590 08/24/2007 INTERNATIONAL CORP (BLF) c/o BIGGERS & OHANIAN, LLP P.O. BOX 1469 AUSTIN, TX 78767-1469			EXAMINER DUONG, THOMAS	
			ART UNIT 2145	PAPER NUMBER
			MAIL DATE 08/24/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/047,020	Applicant(s) BODIN ET AL.	
	Examiner Thomas Duong	Art Unit 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6, and 11 is/are rejected.
- 7) ☒ Claim(s) 2-5, 7-10, and 12-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is in response to the Applicants' After Non-Final Amendment filed on June 11, 2007. *Claims 1-15* are presented for further consideration and examination.
2. In view of the amendment filed on June 11, 2007, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

Response to Argument

3. Applicants' argument, see pg.2-7, filed on June 11, 2007, with respect to *claims 1-15* have been fully considered and are persuasive. The previous rejection is withdrawn. New grounds of rejection are set forth below.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. *Claims 1-15* are rejected under 35 U.S.C. 103(a) as being unpatentable over Irani (US006993570B1) and in view of Campbell et al. (US006920615B1).

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6. With regard to claims 1, 6, and 11, Irani discloses,

- *providing at least two collaborative devices, wherein each collaborative device comprises a client device and an embedded Java server; (Irani, col.1, line 7 – col.15, line 33)*

Irani discloses, *"FIG. 3 illustrates an exemplary network in which a small footprint device running applications/services in the containment framework is connected to a local service-based network. In the example shown, a smart cellular phone utilizing the containment framework is connected to the network. Also shown attached to the network are a printer and an internet-enabled television. In this example, it is assumed that the printer and television devices are operable to export services to a network and possibly use the services of other devices on the network"* (Irani, col.6, line 60 – col.7, line 2). Hence, Irani teaches of small footprint devices (e.g., a smart cellular phone, a printer, and an internet-enabled television) (i.e., Applicants' at least two devices), wherein the printer and television devices are operable to export services to a network and possibly use the services (i.e., Applicants' collaborative) of other devices on the network. Irani discloses, *"The base layer shown in FIG. 2 is the device hardware layer, which comprises the hardware resources necessary to support a software system, such as a processor and system memory. In one embodiment, the hardware of a small footprint device, such as the small footprint device hardware example illustrated in FIG. 1, implements the hardware layer illustrated in FIG. 2"* (Irani, col.5, lines 25-31). Hence, Irani teaches of the small footprint device (i.e., Applicants' collaborative device) comprising of hardware resources (i.e., Applicants' client device). Irani discloses, *"In one embodiment, the containment framework is*

implemented in a Java application environment as one or more Java classes. As shown in FIG. 2, the Java virtual machine and Java application programming interface (API) class libraries layers are the next layers up from the operating system. These two layers together make up the Java application environment, or Java platform" (Irani, col.5, lines 49-55). Hence, Irani teaches of the small footprint device (i.e., Applicants' collaborative device) comprising of the Java virtual machine (i.e., Applicants' embedded Java server).

- *providing a registry service to which the collaborative devices are coupled for data communications;* (Irani, col.1, line 7 – col.15, line 33)

Irani discloses, "A containment framework for small footprint device applications/services is described herein. One embodiment of this containment framework is referred to as York 1.1. The containment framework enables module registration, lookup, instance tracking, etc. Modules in the containment framework may be used by other modules as services. The containment framework may be dynamic, allowing modules to be registered and loaded as desired or needed" (Irani, col.2 lines 12-20). Hence, Irani teaches of a lightweight containment framework (i.e., Applicants' registry service), which allows module registration, lookup, instance tracking, etc., for small footprint devices (i.e., Applicants' collaborative devices) executing in conjunction (i.e., Applicants' coupled for data communications) with network-based computing devices.

- *providing at least one registry table, wherein the registry table further comprises registry records, wherein the registry records comprise registry records representing capabilities of collaborative devices, wherein the registry records*

representing capabilities of collaborative devices further comprise data elements describing, for each collaborative device, capabilities, tertiary relationships, and network connectivities; (Irani, col.1, line 7 – col.15, line 33)

Irani discloses, "FIG. 2 also illustrates the ability of some embodiments of the containment framework to integrate off-device services with on-device applications/services. For example, the containment framework may provide an interface between a small footprint device and a network such as a Jini network. A small footprint device system may register its services for use by other devices or clients in a network. The containment framework may also enable services and applications within the small footprint device to look up and use services provided by other network devices. The integration of services of the small footprint device with network services is discussed in more detail below for FIG. 3" (Irani, col.2 lines 12-20). Hence, Irani teaches of the small footprint device (i.e., Applicants' collaborative device) registering with a lightweight containment framework (i.e., Applicants' registry service), which would include registry tables and records, its services (i.e., Applicants' capabilities of collaborative devices) for use by other devices or clients in a network. Irani discloses, "After discovering the lookup service, a client may request a service from the lookup service using a description of the requested service. The lookup service attempts to match the description given by the requestor to the services that have joined the lookup service" (Irani, col.7, lines 47-49). Hence, Irani teaches of the lookup service (i.e., Applicants' registry) matching the description (i.e., Applicants' describing) given by the requestor to the appropriate services. Irani discloses, "In one embodiment, the local network shown in FIG. 3 may be a Jini network, and the

printer and internet television may be Jini-enabled devices. Each device is operable to find the Jini network lookup service and register the services it offers with the lookup service. The lookup service maps interfaces indicating the functionality provided by a service to sets of objects that implement the service" (Irani, col.7, lines 16-20). Hence, Irani teaches of the lookup service (i.e., Applicants' registry) mapping interfaces (i.e., Applicants' network connectivities) indicating the functionality provided by a service. Irani discloses, *"Many other examples of services based on the network of FIG. 3 are possible. For example: network-enabled consumer devices within a home may utilize a service provided by a power company, via the Internet, which manages power consumption within the home; security service providers may monitor a home or specific devices via network services and may notify the owner immediately when property is broken into; health service providers may remotely monitor a patient's state by communicating with medical instruments; etc"* (Irani, col.8, lines 29-38). Hence, Irani teaches of tertiary relationships with third party entities.

However, Irani does not explicitly disclose,

- *providing a service bundle of OSGI-compliant Java servlets comprising at least one predetermined algorithm for controlling the collaborative devices; and*
- *controlling the collaborative devices in accordance with the predetermined algorithm.*

Campbell teaches,

- *providing a service bundle of OSGI-compliant Java servlets comprising at least one predetermined algorithm for controlling the collaborative devices; and* (Campbell, col.1, line 7 – col.18, line 50)

Campbell discloses, *"In operation, bundles 112 are installed in OSGi layer 120. The execution of bundles 112 by OSGi layer 120 is supported by Java virtual machine 122 in operating system 124"* (Campbell, col.9, lines 28-30). Hence, Campbell teaches of the OSGi layer 120 (i.e., Applicants' OSGI-compliant), which is supported by Java virtual machine 122 (i.e., Applicants' Java servlets), providing execution of bundles 112 (i.e., Applicants' service bundle). Campbell discloses, *"A centralized connection and distribution point may be used to simplify management and control of devices and services available to a home or business and the Internet. An example is presented illustrating the use of a gateway to provide this centralized connection and distribution point in the context of a premises. The exemplary premises comprises a lamp and a computer, and a human user of both the lamp and the computer"* (Campbell, col.3, lines 5-12). Hence, Campbell teaches of controlling of devices via a centralized connection and distribution point.

- *controlling the collaborative devices in accordance with the predetermined algorithm.* (Campbell, col.1, line 7 – col.18, line 50)

Campbell discloses, *"A centralized connection and distribution point may be used to simplify management and control of devices and services available to a home or business and the Internet. An example is presented illustrating the use of a gateway to provide this centralized connection and distribution point in the context of a premises. The exemplary premises comprises a lamp and a computer, and a human user of both the lamp and the computer"* (Campbell, col.3, lines 5-12). Hence, Campbell teaches of controlling of devices via a centralized connection and distribution point.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Campbell with the teachings of Irani to provide a *“method and system for dynamic service support is presented. A portal-page service and an interface bundle are installed at the gateway. A customer service at the gateway, based on the interface bundle, is installed at the gateway. The portal-page service searches for the customer service and generates a user interface for the customer service based on the customer service. The portal-page service generates a portal-page based on the user interface and the portal page service”* (Campbell, col.1, lines 42-50). Irani discloses, *“the lookup service for a local network may also act as a gateway to an outside network such as the Internet. The service-based distributed computing model may thus be extended to include clients and services located outside the local network. For example, the technology being developed for the Open Service Gateway Initiative (OSGI) may be leveraged to implement this type of distributed computing system”* (Irani, col.8, lines 3-10).

Allowable Subject Matter

7. Claim 2-5, 7-8, and 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The prior arts of record fail to teach or suggest individually or in combination as stated in the independent claims: *“wherein the predetermined algorithm is dedicated to a particular tertiary relationship, and the predetermined algorithm comprises the further steps of: finding a registry record bearing a set point for the particular tertiary*

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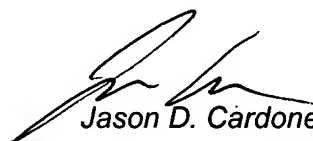
relationship; reading a sensor value of the particular tertiary relationship; comparing the set point and the sensor value, wherein the comparing produces a comparison result; finding, in dependence upon the comparison result, a registry record having an identified capability appropriate to the comparison result for the particular tertiary relationship; effecting the capability identified in the found registry record."

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Duong whose telephone number is 571/272-3911. The examiner can normally be reached on M-F 7:30AM - 4:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason D. Cardone can be reached on 571/272-3933. The fax phone numbers for the organization where this application or proceeding is assigned are 571/273-8300 for regular communications and 571/273-8300 for After Final communications.

Thomas Duong (AU2145)

August 18, 2007



Jason D. Cardone

Supervisory PE (AU2145)